unusually high in the Middle States, New England and Nova Scotia, and that in general the centre of highest pressure was to the northeast of the centre of depression, while at no time does the barometer to the west and north of the storm appear to have been very high or to have risen rapidly or to have shown the usual diminution of temperature after the passage of the lowest pressure.

No. IX.—While the low area just described was in the West Gulf States another depression was entering Dakota and Minnesota. The centre of low barometer moved in an easterly track over Minnesota, and on the 21st passed beyond the northern limit of our reporting stations; it possessed no special features.

Nos. X and XI.—On the 20th and 21st there was an unusual fall of the barometer on the Pacific slope, and on the 22d there appears to have been an area of low pressure of great extent over the region north of latitude 35° N. and west of the Missouri river, and thence extending to the Pacific coast. On the afternoon of the 23d there appears to have been developed, from the low area just noted, two distinct centres of depression. The northerly depression, then central near Bismarck, has its track charted as No. X, and the southerly depression, then central in northern Colorado, has its track charted as No. XI. Low area No. X pursued on the 23rd and 24th an easterly track over Dakota and Minnesota, and on the 24th disappeare l beyond and to the north of Lake Superior. Depression No. XI was, at mid-night of the 23rd, central in southern Colorado; on the 24th it moved with an easterly course into western Arkansas, developing, during the day, increased energy; on the 25th the storm had advanced in a northeasterly direction into southern Indiana, the barometer continuing to fall at the centre of the depression. At the end of this day an unusually high barometer in Nova Scotia barred the path of this storm to the northeast, while to the west and north the pressure was below the mean; under these circumstances, on the 26th, the storm-centre pursued a northerly path into the Upper Lake region. This was the second time during the month that a storm had been diverted to the north when a very high pressure stood to the northeast of the storm-centre, there being, at the same time, a deficiency in pressure to the north and west of the storm-centre, (see description of No. VIII.) On the 27th, the depression moved in a northeasterly track, beyond Lake Huron into Canada; during the progress of this storm, dangerous winds prevailed along the Atlantic coast, north of Cape Hatteras, and in the Lake region.

No. XII.—This is probably the storm reported by the Princess Beatrice as being near the Leeward Islands on the 23rd, 24th and 25th. On the afternoon of the 28th, in the South Atlantic States, there was a decided fall of pressure, and this fall taken in connection with the wind directions on that coast indicated a storm centre of considerable energy in or near the Gulf Stream and east of Florida. The fall of the barometer, and the backing of the wind along the Atlantic coast, shows that on the 28th and 29th this storm pursued a track slightly to the east of north until it is found at midnight of the 29th, central near Halifax. The next day it disappeared beyond Nova Scotia.

INTERNATIONAL METEOROLOGY.

Storms at Sea.—The following notes of storms have come to hand: 13th, 26° 22′ N., 58° 55′ W.; hurricane 15th, 27° 02′ N. 31° W., hurricane lasting until 7 a. m. of the 16th. 16th, 27° N. 52° W.; hurricane. 22d Haiton Island, Formosa Channel, China; typhoon. 28th, N. E. to S. E. hurricane, 34° 02′ N. 76° 20′ W. 6th off Cape Finisterre, S. W. hurricane. Nov. 2d, W. hurricane 50° 05′ N., 20° 45′ W. 6th, terrific northwest to southeast gale, 41° N. 64° W.; northwest hurricane, 49° 02′ N. 32° 01′ W.; hurricane 49° 33′ N. 36° 47′ W.; violent gales with hurricane squalls, 49° 15′ N. 39° 02′ W.; 47° 21′ N. 43° 34′ W.; 46° 23′ N. 35° 18′ W.; 47° 45′ N. 33° 35′ W.; 49° 38′ N. 39° 53′ W. 9th, violent gales withhurricane squalls, 49° 04′ N. 29° 48′ W.; 47° 19′ N. 33° 38′ W.; 49° 18′ N. 41° 19′ W. 10th, hurricanes, 46° 56′ N. 43° 19′ W.; 49° 33′ N. 22° 82′ W.; 48° 28′ N. 33° 26′ W.; gales, with hurricane squalls, 49° 14′ N. 25° 37′ W.; 47° 43′ N. 36° 10′ W.; 54° 36′ N. 30° 08′ W.; 49° 50′ N. 16° 41′ W.; 50° 45′ N. 19° 12′ W.; (fire ball exploded close to ship with loud report,); 43° N. 26° W. 12th, hurricane, 37° 30′ N. 18° 40′ W. 22nd, British Isles, gales, high tides and floods. 25th, British Isles, strong NE gale and floods.

---

forward all information to this Office. Sergeant Naylor—who had gone to scene of wreck in person, carrying medicines, &c. —returned to Kittyhawk at 6 p. m., and forwarded to this Office a report, giving all information he had obtained, number of officers and men saved, etc. A telegraph station was opened, before daylight of next day, abreast of wreck, where, during the day, flag-communication was had with the aiding vessels.

From that time there has been a telegraphic-station open at the scene of the wreck, where the number of messages received, relative to the wreck, up to December 11th, was two hundred and fifty-seven, and sent three hundred and four. During the severe storm then experienced on that coast, and since the telegraph lines of the Signal Service, from Norfolk to the wreck continued to work. The sea-coast telegraph of the Signal Service is used for the purpose of transmitting meteorological observations, for connecting Life-Saving stations or Light Houses, for giving notice of apprehended storms, by the display of signals, and information of shipwrecks. The line is constructed near the beach, so that a telegraph-station may be opened abreast of any wreck. All the stations are equipped with all that is required to open communication with ships in danger, in either the Signal Service or International Code.